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FS Contact: Dr. J. Greg Jones
CoOp Contact: Dr. Steve McCool

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Building Consensus: Legitimate Hope or Seductive Paradox?

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By

Stephen F. McCool
Kathleen Guthrie

School of Forestry
The University of Montana
Missoula, Montana 59812

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Preface

Like many other research projects, this study could not have been completed without the assistance of numerous individuals. Clint Carlson agreed to fund another way of examining public participation in natural resource decision-making, as part of the Bitterroot Ecosystem Management and Research Project. Jane Smith lended her considerable enthusiasm and interest in providing moral support for the project. Her comments on drafts were helpful in ensuring a readable document. Wayne Freimund, Kerry McMenus, and Jim Burchfield provided useful reviews of the initial drafts. Of course, the project could not have been completed if several dozen members of the public, scientists, and agency planners and managers had not consented to interviews. To them, we thank you for your time, insights and commitment to improving our understanding of public participation.

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Executive Summary

Natural resource planners are increasingly turning to public participation as a means of resolving complex and controversial management problems on publicly administered lands. These processes increasingly have consensus as a goal. This goal is particularly appropriate in politicized settings where resource management goals are contested and where scientific information about cause-effect relationships is disputed. While there are literally thousands of references on public participation, few address the meaning of the term consensus.

This project had, as its primary objective, gaining better understanding of what participants in a more or less typical natural resource planning situation defined as consensus. The project examined the viewpoints of scientists, agency planners/managers and public representatives toward consensus building in the Stevensville South West and West Central planning processes on the Bitterroot National Forest. About 40 individuals were interviewed in depth in 1996 and 1997. They were specifically queried about six elements of consensus (identified from the literature): (1) extent of problem agreement and common goals; (2) extent to which the problem can be resolved through publid involvement: (3) exent to which the process was inclusive of affected interests; (4) extent tow which the participants can "live with" the results; (5) extent to which knowledge was distributed equally among participants; and (6) extent to which the agency was given permission to act. In addition, participants were asked if they thought a consensus about management direction was derived from the public participation process.

The results suggested major differences of perceptions on many of the above criteria. While nearly every respondent felt the agency had been inclusive of affected interests and felt that the problem could be resolved through public participation, there were differences on the other four criteria. Many agreed there was a problem, but disagreements about the problem definition occurred. Most could "live with" the decision of the agency, but some could not. People varied in their capacity to assimilate the information and knowledge presented at the meetings. Permission to act is important, particularly in politicized settings, and all respondents agreed this was a critical dimension of consensus. Respondents varied in their interpretation of whether a consensus was arrived at in this particular case. Most agreed that it was an essential step in planning, and one participant noted that, even if no consensus existed, the process was better than no process.

Achieving consensus, then, requires attention to these fundamental criteria. Other factors also must be attended to. These include the leadership and facilitation of public meetings and the institutional setting in which public participation occurs. Further research is needed to better understand the relative importance of each dimension to the public, participating scientists, and relevant agency planners/managers.

Introduction

In the social settings that typify natural resource planning, interest groups vie and compete for allocation of resources to specific ends and values. The competition for scarce resources produces conflict (because the goals one group pursues interfere with those of other groups), which in many settings leads to paralysis instead of action. In these settings, while public land managing agencies hold the legal authority to conduct planning exercises—and indeed are often mandated to do so—interest groups outside the agencies struggle for (and may retain) the political authority to implement plans. Plans that do not meet interest group expectations are effectively "vetoed" in the political marketplace. Planners become frustrated because they perceive political interests and personal philosophies gaining the upper hand over what they believe is rational resource allocation. The public is frustrated because problems go unresolved and scarce public funds are allocated to emphasize bureaucratic processes that ensure procedural compliance over substantive change.

These concerns have led many theorists to propose approaches to planning that serve as alternatives to the traditional rational-comprehensive process characterizing planning today. Such natural resource planning is generally constructed upon the "Euclidean" or engineering-based model of planning criticized by Friedmann (Friedmann 1993). In the 1980s, for example, national forest planning often used a linear programming approach (FORPLAN) to allocate lands and schedule timber harvests. While FORPLAN more or less accurately defined timber values and allocated lands to timber production, nonmarket values were often misspecified and thus misallocated. While FORPLAN and other similar modeling approaches may be useful in situations where there is broad agreement on goals of natural resource planning and where scientists agree on cause-effect relationships (Thompson & Tuden 1987), wildland natural resource settings are often caught in situations where neither condition exists.

We assume this predicament for two fundamental reasons. First, the goods and services demanded from publicly administered wildlands have expanded over the last decade, becoming more inclusive of non-market, amenity and biodiversity values (Gale 1991). For example, as the population has become more ethnically diverse in the West, demand for nontraditional forest products—mushrooms, decorative plants—has accelerated. These demands often require a forest character different from that needed for timber harvesting, thus clashing with frequently entrenched commercial interests. Second, wildland management has become increasingly focused on "landscape scale" analyses, scales significantly larger than the classical stand management of production forestry. This movement up in scale has been brought about in the 1990s by a shift to an ecosystem-based management paradigm. As spatial and temporal scales have enlarged, information needs have grown faster than scientists can produce the relevant knowledge or produce predictions with traditional levels of confidence. Thus, there is increased uncertainty about effects of actions at larger spatial and longer temporal scales, resulting in conflicts among scientists about consequences of proposed actions.

Planning situations contextualized by disagreement about goals and beliefs about cause-effect relationships may be termed "messes", adapting the terminology proposed by Ackoff (Ackoff 1974). Messes are systems of interrelated problems that include both the problem of selecting an appropriate future condition and the challenge of developing alternatives to achieving that set of conditions. In such situations, expert-driven rational comprehensive planning may actually exacerbate conflict because it does little to enhance opportunities for contesting groups (as well as planners and scientists) to engage in the learning needed to identify, examine and negotiate desired futures among conflicting groups. Planners have increasingly recognized failures of rational comprehensive planning and as a result, there have been numerous calls for planning based on processes designed to seek consensus among conflicting groups. A variety of popular and technical works (e.g. Fisher & Ury 1981, Crowfoot & Wondelluck 1990, Innes 1996, Susskind & Cruikshank 1987) have emphasized negotiation skills, alternative dispute resolution techniques and consensus building processes as methods to address the problems with rational-comprehensive planning.

While there has been increasing attention to involving the public and seeking or creating consensus about management of natural resources, there is still some confusion about what the term means. Meanings are important because if consensus is a goal, then all participants need common understanding so they know and agree when they have arrived at that goal. The search for consensus may have important positive benefits, in terms of increasing opportunities for dialogue, learning, and jointly sponsored implementation of programs. At the same time, however, natural resource planners may be seduced into believing that all that is needed to get plans implemented is to establish a "consensus group." While many such groups work well, others do not, yielding perhaps increased frustration for planners who are already suspicious about the value and cost of public participation.

On the one hand, attempts to build consensus in contentious settings may be a legitimate hope that complex public policy questions can be resolved at the local level with citizens, planners and scientists cooperating in a public-spirited manner. Public participation programs involving federal agencies, however, are repeatedly confronted with numerous and complex institutional and social barriers; building consensus requires that these barriers be overcome when attempting to organize citizens into the constructive sessions required.

Surprisingly few examinations of consensus building processes have been reported in the planning literature. In this paper, we explore the concept of consensus using a case study involving planning for federally managed natural resources located in the state of Montana. Our purpose is to map the components needed to come to a consensus in a situation typically faced by federal natural resource planners.

The Concept of Consensus

Consensus is a term that is frequently used in situations where there is conflict over social or environmental policy. It brings to mind the idea of working things out or resolving disputes through voluntary socio-political mechanisms. Webster's defines it as "the judgment arrived at by most of those concerned" or "general agreement". In practice though, consensus remains a vague term. Innes views consensus "as a way to address complex controversial public issues where multiple interests are at stake", but fails to specifically identify the meaning of the term (Innes 1996). Nagel (Nagel 1995), speaking in a political party context, has defined consensus as a "public policy that is capable of achieving both conservative and liberal goals simultaneously". Achieving goals is conducted through a process of interaction, negotiation and compromise. However, Forstner and Bales (Forstner & Bales 1992) warned against seeking consensus, and differentiated it from compromise, although they did not explicitly define consensus. Nagel (Nagel 1995) reinforced this notion when he stated "win-win policies should be distinguished from compromises, where both sides retreat partially from achieving their goals in order to obtain an agreement." Consensus defined as "no one blocks an agreement" would seem to place a heavy obstacle on public participation, in that this would require unanimous opinion, something difficult to achieve when discussing complex and controversial resource management issues.

Within a natural resource context, Crowfoot and Wondolleck use the term "environmental dispute settlement" to mean the same as consensus building and have developed three characteristics to define it. They included: 1) Voluntary participation by the parties involved in the dispute; 2) direct or "face to face" group interaction among the representatives of these parties, and 3) mutual agreement or consensus decisions by the parties on the process to be used and any settlement that may emerge" (1990). Likewise, Susskind and Cruikshank describe three similar components of consensus, but go on to say that approaches to consensus building are both "deceptively simple and extraordinarily complex" (1987).

While meeting the first two characteristics stated by Crowfoot and Wondolleck is a fairly easy task, additional exploration of the conditions needed to create "mutual agreements" (the third characteristic) is required. We propose that consensus-building processes meet an additional six conditions.

First, parties to the conflict must agree on the definition of the problem (Carpenter & Kennedy 1985, Potapchuk 1991). Common understanding, shared goals, and similar definitions of problems lie at the heart of consensus, for resolutions to problems require that participants be speaking to the same topic. And, while parties to a conflict may agree that a problem exists, disagreement on what the problem is may be a fundamental obstacle. Abortion is an example of where parties to the conflict do not agree on the problem definition (pro-life vs. pro-choice). In a natural resource context, conflicts are often defined in significantly different terms by conflicting groups. For example, those in favor of snowmobiling in Yellowstone National Park may define the problem in terms of rights

of access to a public resource or equity in economic opportunity, while those opposed may define the problem as impact on wildlife or as interference with their pursuit of a quiet, serene experience. The differing definitions are important because they serve to constrain the discourse and also serve as filters on what messages are actually received by the conflicting groups.

Second, there must be agreement that it is appropriate to involve the public in decision-making processes. The dominance of science in the ecosystem management paradigm may challenge this condition. While several pieces of federal legislation require that the public be given opportunity to identify issues and respond to draft alternatives, this level of public involvement would be low on Sherry Arnstein's (Arnstein 1969) ladder of citizen participation. The type of public participation is the important question (Conner 1988, Potapchuk 1991) because it indicates the willingness of public agencies to engage citizens at different levels. Participants must agree to jointly pursue a problem, and that seeking its resolution in a public venue is properly within the domain of public participation

Third, there must be a willingness to "go along" with at least some policies that one group accepts but another dislikes. This means that groups must be willing to accept some compromise rather than all participating groups unanimously agree. Cooperation over competition is emphasized in consensus building processes (Avery et al. 1981). However, compromise is only possible when there are at least some goals held in common. The group must recognize that the members hold similar values or purposes upon which discussion may proceed. When conflicts are defined as a zero sum game, resolution through negotiation and consensus is simply not possible because solutions come totally at the expense of one group or another. Thus, to achieve consensus, a group must be willing to accept at least some unpopular choices.

Fourth, a consensus building process must be inclusive of affected interests (Potapchuk 1991). Consensus building processes that exclude legitimate affected interests and values are fraudulent, will lead to increased distrust, particularly about "hidden agendas", and create additional conflict. This condition does not necessarily mean a "town hall" approach to consensus building, but rather insurance that the distribution of values and interests in the public are represented in the consensus building process. Consensus may require redundant horizontal linkages within a community, and in the case of federally managed resources may demand vertical linkages to national organizations as well. Increasingly there are concerns from the environmental movement that public participation, particularly at the local level, for federally administered natural resources puts ecological values at risk and means that environmental values will not receive equitable consideration (McCloskey 1996). In a recent California public land management conflict, the local and national Audubon Society offices disagreed over who could best represent the public interest in managing national forest lands. The senior vice president of the Audubon Society stated that a senate bill to implement the local chapter's suggestions *"would allow a relatively small group of citizens to dictate public forest management, rather than agency officials receiving input from the public at large. Forest Service*

employees often make poor decisions and may not process the public input in a manner we approve of, but they are more likely on the whole to act in the public's best interest than local management coalitions" (Beard 1997).
So while there may be agreement that the issue can be dealt with effectively with public involvement, there may be dissension on how the public will be represented.

Fifth, there must be permission to act, that is, the agency proposing land management action must have the consent of those governed. This means that a problem defined by the agency is recognized by those affected as legitimate and must be resolved. This is often a problem in conflict situations where agencies are in conflict with their clients or stakeholders. Stakeholders may not be convinced that a problem exists, may feel that a particular agency is not the appropriate one for resolving the problem, or may exhibit belief systems incompatible with the range of proposed resolutions.

Sixth, participants must be able engage other participants, including land managers, on equal footing. This means that all participants have access to the same information, policies and decision-makers (Potapchuk 1991). Access to knowledge is an important influencing element in planning (Forester 1989). Typically, planners, and more so, scientists, are viewed as the holders of specialized technical knowledge critical to defining and resolving the problem (Friedmann 1987). Increases in knowledge lead to an expanded decision space, and may lead to changes in beliefs about natural resource issues. Land management agencies have often believed that through education, publics would come to the same conclusion specialists hold about the appropriate management direction. Imbalances in knowledge between agency and the publics may also be a source of distortion during the planning discourse (Forester 1989).

In summary, elements of mutual agreements include (1) a common understanding of the problem; (2) agreement that the problem can be resolved through public participation; (3) a general, not necessarily unanimous agreement (there may be disagreement but a willingness to "go along" with the decision) on the proposed action; (4) extent to which the process was inclusive of affected interests; (5) permission to the agency to initiate actions; and (6) an equal amount of knowledge among participants about the action, alternatives and consequences. We note that other setting factors, as Shindler and Neburka (Shindler & Neburka 1997) have observed, are also important for a successful public participation process. These other factors include facilitation, leadership and organization skills. However, constructing consensus may occur without these skills and can only occur if the above six conditions have been met.

Consensus building is assembled upon, at least implicitly, collaborative learning processes, where an understanding of multiple interests is joined with the basic scientific understanding of relevant conditions. In ecosystem-based management, the importance of human concerns and integration of scientific, anecdotal and procedural knowledge in developing management actions has been well established in the literature (e.g. Moote et al. 1994). Several authors have argued that such planning requires participation of planners/managers, scientists and the public (Kusel et al. 1997, McCool & Ashor 1984). Agency managers and planners bring with them to the collaborative setting the mandate

for planning as well as certain technical and procedural expertise. Scientists contribute specialized knowledge about ecological or sociological processes and conditions, effects of management actions, and the presence of unique or valuable species. Members of the public demand that socially important questions be addressed, force higher quality research, and provide emotional, anecdotal and political knowledge that defines the acceptable decision space.

The Study Area and Methods

Two relatively small, adjacent and procedurally linked planning projects in the Bitterroot Valley of western Montana served as the setting for examining the concept of consensus. Both projects were conducted by the Stevensville District of the Bitterroot National Forest and designed to address ecosystem-based management issues at a landscape scale. The projects (the Stevensville Southwest and Stevensville West Central) were conducted sequentially. Both involved numerous meetings with members of the public (about 40) and were directed toward developing management actions for a variety of forest uses—including timber, grazing, watershed, recreational and wildlife values. The projects were conducted over the period 1992 to 1996. Currently, formal environmental analyses on both have been approved, following unsuccessful administrative appeals by various interests. The public participation process involved a variety of formats, including typical agency informational meetings with the public, small group processes, field trips and presentations from participating scientists.

Both projects were similar in size (about 40,000 acres) and scope of issues. Each was based on the concept of "ecosystem management", a new paradigm of natural resources management whose definition has remained elusive, but tends to emphasize decisions at a "landscape" scale. Ecosystem-based management is rooted in science, suggests that management "mimic" natural processes, and stresses multiple outputs of management rather than a single, commodity purpose. Ecosystem-based management underscores long-term sustainability of interacting social and biophysical systems. Each project followed guidelines for preparation of environmental assessments under the National Environmental Policy Act (NEPA) in accordance with Forest Service procedures.

The Stevensville West Central Project (SWC) had a significantly higher level of public involvement than the earlier Stevensville Southwest Project in an attempt to create a consensus about management direction. In addition, a focused scientific effort was initiated by the (then) Forest Service Intermountain Research Station to create a larger information base upon which to make decisions. Scientists from various programs and departments from The University of Montana also participated. An essential feature of the scientific participation involved presentations by scientists to both federal managers and members of the public to increase awareness of important ecosystem processes and functions in the planning area. (During the Stevensville West Central Project, the junior author assumed a participant-observer research strategy.)

In this study, all scientific and managerial participants in the SWC were interviewed to explore the concept of consensus. About half the public participants were sampled. Public participants (which included a typically wide range of beliefs and political positions about natural resources management) interviewed were sampled to achieve representativeness of perspectives on the project. Some participants were unavailable for an interview; only one declined. Interviews were conducted in the summer and fall of 1996, with six additional followup interviews initiated in the summer of 1997.

A total of 40 individuals was interviewed. All interviews were conducted on a confidential basis. Interviewees were asked if they perceived the presence of a consensus, and what a consensus meant to them. The followup interviews were specifically designed to more completely determine what elements of consensus were perceived to be present by key participants in the project. Each interview was taped with the permission of the individual and was later transcribed. Transcribed interviews were searched for key concepts related to consensus.

Results

The results of the study are presented within the six major components identified in the previous sections as well as a summary section concerning perceptions of consensus. Quotations from interviews are used to demonstrate agreement or disagreement with the component and to provide additional contextualizing information. The exact language is used in the italicized quotation, with the exception that "ums" and "uhs" and other grammatical faults of spoken English have been removed and where necessary, clarifying language has been inserted (and enclosed in brackets). Quotations were selected to represent the various perspectives on each of the components of consensus; where possible, quotations from scientist, agency planner/manager and public participants are included to show similarities or differences in viewpoints.

Extent to Which there is Shared Definition of the Problem

An underlying element of the consensus concept is the notion of agreement not only on a resolution to the problem, but on the definition of the problem itself. The formalized problem statement from the Forest Service was defined as ensuring "the capability to sustain biological diversity at the landscape, community, and species levels through competent ecosystem stewardship" (Bitterroot National Forest, 1996).[1] Participants differed in their opinions about whether an agreement on the problem existed and/or motivation for participation. Public representatives felt that the reason for participation was that:

> *"they [the participating publics] have some sort of concern for what sort of management was going to be going on in their national forest."*

Another member of the public noted, in response to a question about agreement on the problem:

[1] This statement appears in the Environmental Assessment for the Stevensville Westcentral planning unit. The Stevensville South West Unit had a similar purpose.

"To a degree, yes, but there wasn't a 100% conversion. There was a little bit of doubt. People didn't necessary buy the idea of EM because they felt that the Forest Service didn't know "siccumb" about what they were doing anyhow."

A third public representative, indicating uncertainty about agreement on the problem, stated:

"Well, if the indication that we met for, how many years, is an indication of our agreement [on the problem] then I'd say we didn't agree on what the problem was."

One of the managers summarized the difficulties in coming to agreement on a problem definition by stating with reference to a particular public interest group that:

". . . in their eyes, the problem was to stop us from cutting trees maybe, protecting roadless areas. Yeah, I think everyone perceived the problem completely different - maybe that's the problem. We saw it different than they saw it and people coming to get educated, maybe they didn't see a problem because they were just coming to learn."

A participating scientist observed that:

"The public were [sic] coming because the Forest Service had stated that they were going to develop a plan of action for SWC and they wanted to have public input on that - that was part of it."

But, motivations and definitions varied significantly:

"I think the people were coming for a number of reasons - some people wanted to find out what the Forest Service actually meant by EM, other people were coming because they anticipated some kind of manipulative change on the forest and they wanted to know what it was going to be and be able to voice their opinion, pro or con. I don't think many people were coming just to become more enlightened about EM per se, I think they were concerned about how the Forest Service was defining it and what then they were going to do with it - how they were going to take this EM thing, a definition and how they were going to apply it to some kind of action on the ground."

One respondent felt that the motivation for individual participation wasn't so much to help resolve a problem but rather to ensure that interests were represented:

"Some people were there to in a way maintain their group's presence and maybe they looked at it in the longer term like we did, but I think also that there were a lot of people there just for their own individual reasons - because they were interested in the area, they lived right there. Anytime the ranger is proposing a variety of things for an area that people live by, then you know, they become pretty interested. People weren't only drawn (into the process) because it was in their backyard, but also because it was part of their view shed."

Thus, while the Forest Service was developing a plan for sustaining biological diversity, members of the public tended to define the problem or goals as what the agency intended to do on the land without respect to a particular management ideology. Some public participants were motivated by a desire to help resolve an ecosystem-based management problem but others participated in order to protect an interest or even out of suspicion

about other groups and their motivations. Misgivings about what actions the Forest Service would pursue rather than seeking a consensus on proposed actions seemed to typify the motivations for the publics' participation. Scientists were involved primarily because they were there to provide information, while agency planners participated to meet national forest planning goals.

Extent to Which the Problem can be Resolved Through Public Involvement

In order to create consensus, there must be agreement that the problem can be resolved through public participation processes. This condition is critical, because some, particularly scientists and managers, may hold beliefs that only expert or scientific knowledge is necessary for the planning process. Ecosystem management has largely been defined as a scientific process, with the public more or less on the outside looking in and playing a role only marginally different from the formal public participation requirements of NEPA. Respondents in this study, however, felt that public participation was an essential, if not sole, component of the planning process. In response to a question about the ability of the problem to be resolved through public participation, one public participant observed:

> *"Not by itself perhaps, but it [public involvement] is part of the process that is very necessary to resolving it. ... In a sense [Stevensville West Central Planning Unit] was good because it wasn't the case of the Forest Service saying to the public, "Hey, we know this is right and this is the way we are going to do and we want you to know it". In that sense, it [Stevensville Westcentral Planning Unit] was a change in how they approached the public about forest management."*

A manager noted that there were other benefits to public participation in addition to resolving the problem when he stated:

> *"I think there is a lot of paybacks in terms of, you know hopefully in the long term of getting some sort of public trust and that is something we lack here in the valley. That is our long term goal - to get people to essentially trust us and be willing to let us do something out on the ground."*

However, several respondents noted limitations on public participation, recognizing that technical aspects of ecosystem management were important and that public understanding of those aspects was critical. One member of the public, for example, stated:

> *"So, another thing that is really necessary to be effectively involved in a management plan is to understand all the technical aspects of it too. There has to be some place for the public to be involved, but I'm not sure if the technical part of it is where you involve the public."*

Learning, however, goes beyond the technical aspects of the problem and includes learning about each other, a value that is critical to the dialogue needed in a public involvement program:

> *"If you can identify them [issues], at least you have the possibility of getting*

people to talk to each other about the agreements or differences. That's definitely the first big step in developing a management plan that all people will buy into to one extent or another."

A manager observed that a limitation on public participation is who comes to be involved in the process:

"Its probably not the best [way to address the "problem"] because you only manage to get the involvement of people that have an agenda or feel passionately about things and although you definitely should be listening to them, there are a whole bunch of people out there that have just as much of a say, but they may not feel as passionately or strongly - I think they are just as important - its their land too."

Ecosystem management is a concept that is presently evolving and the scientific methods and tools are unfolding as well, and this was a limitation to the process for all participating groups, as a scientist observed:

"Every meeting we would go in saying 'Well, this is the way it was, now it's changed, this is the way it is', [until] the next week. So, I think this is a problem. Internally we had a problem with the moving target of ecosystem management, MAGIS and SIMPLE and GIS [technical planning modeling methods]. And, I think externally, for the public that was a problem."

In general, then, members of the public, agency planners and scientists agreed that public participation was appropriate for this ecosystem-based management situation, but that effectiveness was limited by the technical aspects of the problem and by who was involved. Melding technical knowledge with personal knowledge is a fundamental problem in planning (Friedmann 1987); communicating technical knowledge to the lay public in ways that are understandable yet not condescending is a challenge to scientists and planners. Learning, however, is a two-way street: the public has much to offer scientists and managers in terms of local knowledge, the social importance of various natural resource values, and the acceptability of management actions. The data also shows that there was recognition of other significant benefits of public participation including building trust and enhancing relationships.

Extent to Which the Process was Inclusive of Affected Interests

Public participation processes that attempt to build consensus must be inclusive of the belief systems that are affected by policy. This condition is reinforced by a scientist who stated:

"... if you have only a small group of people that are coming and they represent certain interests and the certain interests represent a third or a half of the public and you want to get a consensus that's 80 or 90 percent, it's not going to happen."

In this case study, all participants agreed that there had been legitimate attempts to bring the various interests into the process. An environmental representative observed:

"Well, let's put it this way, I know for a fact that the Forest Service bent over backwards - they made a monumental effort to touch all groups that could possibly be interested, whether they were recreation, ranchers, ordinary citizens, homeowners. Now, not every group responded, not every group participated."

Still another member of the public stated:

"I think that it [the process/agency] accommodated anybody that was interested in the process."

Thus, there was recognition that a consensus building process must be inclusive of various values and interests, and at least some participants recognized a good faith effort on the part of the agency to be inclusive. This is an important finding because perceptions of process go to the heart of concerns about trust and legitimacy. A process that is viewed as exclusive or biased at the beginning will have little social validity at its closing, if it makes it that far. The extent to which the process is viewed as inclusive is positive and conducive to building consensus and trust with the agency.

Extent to Which Participants can Accept or "Live with" Results

The nature of agreements made in a public participation process is the basis of consensus, and, as we noted earlier, there is a lack of attention to this fundamental question in the literature. To some, consensus may mean unanimous opinion; to others a general agreement and to still other participants, a level of agreement where some participants may be happy and others may go along grudgingly. This diversity of definitions was recognized in the following statement by one of the citizen participants:

"I agree because people do mean different things. Some people mean total unanimity by consensus. And I certainly don't. And, some people just mean majority rules. I don't mean that either. I mean by consensus that everybody makes the best faith effort to understand each other and understand what's on the table, what's being discussed and what's being decided."

The variety of definitions of agreement or consensus can be a significant stumbling block to knowing when "agreement" has been reached and when to move on to other issues. However, in this case, most respondents independently identified a "can live with it" definition. For example, a manager defined consensus the following way:

"With anything that you're dealing with, all the players that are involved in it, can come to an acceptance of what's going to take place. They may not totally like it, but they can live with it."

The needs of those who can't "live" with a proposed action should not necessarily be ignored. It is often important to determine the background to their concerns as suggested by this manager:

"A consensus process then also takes into account those people who cannot live with something and trying to understand why they cannot live with it."

Others noted that living with the agreement was conditioned on an ability to change the plan later if it was needed, as shown in this extensive quote from a member of the public:

"I think down the road that you just get kinda resigned that that is what happened and that is where the chips fall. This is probably one of the few areas where in the back of my mind I feel like the plan [Stevensville West Central Planning Unit] could be modified if five years from now something isn't working and if the plan has a protocol for evaluating how its moving along, there ought to be an equivalent step in there that says, "We need to shift some resources or we have some different information so we can draw some different conclusions now". I feel like the type of management plan they came up with would allow for some flexibility in making some management changes that the group originally didn't probably anticipate or couldn't envision - unlike something like a highway."

However, another respondent felt that because of the diversity of interests and the heightened level of conflict in the state, even a "grudging" agreement may not be possible. Even the *goal* of consensus for public participation was questionable to this management respondent:

"They might strive for it [consensus], but they'll never get it. At least, not here. I just think there are too many different ideas and too many people too emotional, too strongly to every change. I don't think consensus is possible, nor do I think it should be the goal. I think what we need to do is work together with our public and try to listen to what they have to say and incorporate their ideas wherever possible. But consensus is never going to be possible in Montana."

Respondents were asked if they could "live" with the results of the Stevensville planning processes. A manager noted:

"Well, that is kinda an interesting question. I think that the general population, after implementation, is going to be just fine with it because I think its going to look pretty good. I think the members of the group that were adamantly opposed to doing anything up there are not going to be able to accept anything, especially the planning portion of it. I think they look at that big map with all of the treatment areas and have kinda a gag reflex to it."

The fact that at least some respondents felt that they could "live" with the results was important in allowing the community to move on to other land use issues and questions. It also suggests that at least some values or goals were held in common among group members. This public participant noted that the consensus may not have been all that important to other members of the public, but has allowed the community to move forward:

"Yeah, we're going live with it. I think other people in the community have totally forgot all about it. They haven't kept up on it. It's ok because it's nice that it got resolved enough that they could leave it behind and go onto something else."

In summary, respondents tended to define consensus, not as a unanimous agreement, but rather recognized that some participants may not prefer an action but can "live" with it. This is important because if all agree on this definition it provides opportunities for negotiation among different publics, tradeoffs among a set of actions, and in general an easier course than expecting a unanimous solution. However,

respondents were cognizant that if some participants cannot "live" with an action, then some responsive course should be taken to better understand the objections to the action.

Extent to Which Knowledge was Distributed Equally Among Participants

People must engage each other on equal footing in order for authentic interaction to occur. In the Stevensville West Central and South West projects, Forest Service planners and scientists attempted to communicate the technical data and modeling needed to better understand the ecosystem. This was done through numerous public meetings and field trips. The effect of this attempt may not have been to resolve a particular planning problem as much as to increase awareness of ecological processes, as suggested in this quote from a scientist:

> *"I think that we did reach a higher level of common understanding of the ecological events that have occurred in the Valley over the last 200 years. I think most people have bought into the idea that fire is an important ecological force on the landscape. I think they've bought into the idea that the vegetation certainly has changed substantially in the last 150 years."*

Attempting to bring all participants up to a common level of knowledge about ecological processes and how they will be incorporated into a management plan can be a time consuming process, one in which some participants may drop out of simply from meeting exhaustion. On the other hand, some participants may come away from the first set of meetings impressed with the level of information being used and thus feel the agency can be trusted to use the best knowledge:

> *"There was not a lack of availability of knowledge. I think the way I saw it was that we started out with a pretty good-sized, fairly diverse group and we went through the first phase where we were presenting information as we knew it and then trying to develop issues. It seemed to me that at some point a lot of those folks dropped out of the process and didn't come anymore and I think that what had happened was that those folks pretty well accepted the information that we were providing and they learned a lot through that phase and said, "Well, ok I learned what was going on" rather than trying to define goals"*

People vary in their cognitive capacity to assimilate and understand information, particularly in ecosystem management situations where many concepts—such as the role of fire--contrast with the knowledge people currently hold. Finding the "lowest common denominator" will be difficult as this public participant suggested:

> *"I think people, the knowledge they brought there (to the process) with them sometimes didn't match the knowledge that was presented at the meetings. So that inter-conflict to me became expressed in the group and some sub-group type of conflicts - parts of that were never overcome. And I don't know that if you start out with different "denominators" (different, distinct levels and types of knowledge) it's really difficult. It's going to be hard to identify the lowest common denominator unless it gets so basic as to not be useful for a management*

approach."

However, equal understanding of ecological processes and conditions did not, in and of itself, lead to greater agreement on proposed actions. A history of conflict between the public and agency served as a context that inhibited even the discussion of basic biophysical conditions as these two managers noted:

"...we weren't changing those folks mind with the information we were presenting - and they weren't changing ours either. There was a lot of dialogue but not really much movement on either side. So there was the opportunity for those folks to acquire the knowledge that we were presenting, but on the other hand, I think that essentially [they] weren't buying what we were telling them."

"...people have barriers and they already believe what they believe and don't want to be confused with the facts. I think we did have a common knowledge base - as good as we could get."

Understanding the complex information presented to participants as they seek to build a consensus requires a two way flow of information, dialogue among participants. This respondent identified the importance of mutual respect in such a dialogue:

"The thing about consensus is that you always have to remind people over and over that you have to respect yourself and others, that you can't speak for someone else and you have to speak in a respectful way to others - you can't criticize someone else, you can discuss ideas but you can't criticize them. That is maybe one thing about federal agency - it kind of lets people take advantage of them, it kind of lets people give them a bigger kick in the butt because it's a "federal agency" and it's not something personal and people move in and out of the district."

Communicating scientific knowledge to the public and agency planners was a fundamental objective of the planning effort. The comments reported here suggest that achieving this goal was inhibited by value differences, particularly between the agency and its publics. Which facts people agree to and which they don't hinders problem definition and the data presented here suggest some confusion about the problem definition. A variety of other factors, including fundamental belief systems about the management of public lands and trust levels, intervenes in developing a consensus. The data also suggests that scientists need consider the varying cognitive capacities of public members when communicating the complex ecological principles of ecosystem based management.

Extent to Which the Agency was Given Permission to Act

The idea of informed consent has been in the literature for many years.If the agency does not have the confidence of its public to implement actions, it has lost its legitimacy as agent of public policy. When one member of the public was asked if the agency had received permission to act the response was definitive:

"No. I don't think that happened. Part of the reason it didn't is that the process,

especially the second one [Stevensville West Central] went on for so long that basically for a period of time, five or six months, [that one interest group] were the only public that showed up. And so it wasn't possible for it to happen - for people to move as a group".

Other respondents suggested the difficulties in achieving this permission as demonstrated in the following quotations:

"if we reach consensus on anything in the Bitterroot, it's that no matter what's planned, it's going to take a long time to get there - everybody understands that now and that's pretty good. We reached consensus on the idea that there is a perceived problem out there".

"They came to the table with their own perception of the world, totally different than ours and we didn't change their mind. We tried to listen to each other I think, but I don't think it ever went beyond that. It's the philosophies involved that are very contradictory. [Active management vs. no management] - "nature knows best, etc."

The above quote suggests a major dilemma for ecosystem-based management: given a paradigm that emphasizes management as experimentation, how does the agency communicate adaptive responses to ecosystem conditions? The individual above certainly did not perceive a willingness on the part of the agency to experiment and listen. If the agency is not willing to listen, then what legitimacy does the agency hold when it comes to on-the-ground action?

Did a Consensus Exist?

One manager observed that not all people will agree with proposed actions and that it is important for planners to recognize this. He had hoped,

"... that we would at least get to the point where a majority of the people are very enthused about the course of action and a large section of the rest of the public are willing to live with it, while it may not be their best, it's O.K. And, getting comfortable with the fact that there's always going to be some percentage, the fringe elements that just don't want to see something happen ..."

While one manager was rather fatalistic about the project achieving consensus *("We will NEVER make everyone happy nor is this possible")*, a scientist felt *"that it's better than no process whatsoever"* even though this scientist felt that a consensus had not been achieved.

The difficulties of achieving consensus in a pluralistic and contentious setting were observed by one manager deeply involved in the process, who eventually questioned whether consensus should be a legitimate goal:

"I used to think so.[That a consensus was possible.] I'm not sure it's possible or realistic. Things are too complicated and too diverse. The different values out there."

Another scientist felt that the way in which public meetings were held prevented a consensus from emerging:

> *"It depends how you define public involvement. If it's just a series of public meetings, I think it becomes very difficult to get consensus because in that format the public can not play a role in having much input... Their bottom line was 'Well, we've come through all this and folks still haven't really responded to us and our concerns' So, I'm not sure much consensus was reached."*

A citizen agreed with this perspective when he stated:

> *"I don't know that we're spending a year and a half to two years knocking our head against a wall trying to reach that when it's pretty obvious on the onset that it's not going to happen."*

Consensus can develop at many levels. The problem here is that that there may have been consensus about the general values and functions of forests, such as clean air or visual quality, but consensus at a more specific level, such as the type, location and intensity of timber harvesting may not have occurred. Many participants felt that while a good faith effort to involve the public took place, a consensus did not emerge from either of the planning processes. While the public participation resulted in an enlarged understanding of ecosystem processes, what to do on public lands as a result of the conditions and processes occurring there was still subject to debate. Perhaps building consensus is not an appropriate goal, as this manager observed:

> *"West Central may have pointed out maybe the futility in some of the things we were trying to do in terms of trying to reach consensus with everybody so I think we may readjust our framework and maybe not have that as a goal so much."*

The preceding results suggest significant variability in how participants viewed each of the several conditions. Variability within groups was also evident, particularly among the public members. These findings suggest that a consensus about the desired future and needed actions to get there may not have existed, despite nearly heroic efforts on the part of the Forest Service in conducting meetings and organizing field trips, disseminating information, listening to participants, and creating multiple opportunities for input. This also suggests that judging the success of a public participation program on the number of meetings or participants may lead to false conclusions.

Discussion

Building a consensus on natural resource management issues could only be described as a difficult process. Not only must planners work with publics in developing a shared vision of the future, but gaining common *definitions* of the particular problem may itself be challenging. The study reported here clearly demonstrates these challenges, even in a situation by western standards that is relatively modest. Several contending groups, a lack of trust in the managing agency, and a new paradigm of management made meeting the conditions for consensus difficult, if not impossible. Past actions of the agency and perhaps some of its publics may have made developing the relationships needed for

successful consensus building difficult.

The public participation process used here was extensive, and while it did not necessarily lead to a set of actions every participant could live with, it seemed to result in a broader set of outcomes than traditional NEPA driven processes. Participating publics appear to be better prepared to discuss other land use planning issues, managers now have a more realistic set of expectations about what can be accomplished through public participation, and while not reported in this paper, scientists have a better concept of how to communicate technical concepts to the public (see Freimund 1998). Guthrie (Guthrie 1997) reports how participants in these planning processes defined success in a multi-dimensional manner, including not only changes on the ground, but also in terms of learning, responsibility, representation of interests, and enhanced relationships. These findings coupled with the ones reported here suggest that authentic public participation and attempts at consensus building may yield important, long-term benefits to both agency planners and its publics.

The results suggest several conclusions dealing with the SWC project in particular and the broader concern of consensus building as an objective of public participation in natural resource planning.

First, the participants interviewed here displayed somewhat different perceptions of most, but not all the six conditions identified earlier. For example, while a scientist felt that a mutually agreeable definition of the problem was developed, planners and the public apparently felt differently. Nearly all participants agreed that public participation was integral to the ecosystem-based planning used in this case history, although there was some question about the role of the public in the more technical aspects. Third, all participants agreed that the process was representative of those values and interests affected, at least at the local level. The public indicated that the Forest Service had made a good faith effort to include all stakeholders.

Fourth, participants indicated that nearly all could "live" with the results of the process, even if they were not enthusiastic supporters of the outcome. Although the plan was administratively appealed by one participating group, the plan was upheld and no further appeals have been made. However, this aspect of consensus seems to be most problematic as a concept and in practice. Fifth, while participants showed similar perceptions about the distribution of knowledge, the acceptance of knowledge was explicitly recognized among some as a function of worldviews, views that differ between the agency and some of its publics. This difference in world views may not be overcome through further data gathering, but may be addressed through additional dialogue that creates understanding of the difference, if not agreement. Concerning the sixth condition, our data was not extensive, but suggested some differences in whether the agency was given permission to act. Certainly, the use of administrative appeals indicates that at for at least one participating group, this permission did not occur.

The results suggest that, despite intensive public participation efforts, a consensus on appropriate ecosystem-based management actions may not have occurred in this case study. Such a consensus building process confronted numerous barriers, such as crucial

disagreements on views of how Forest Service lands should be managed. While the attributes of public participation success identified by Shindler and Neburka (Shindler & Neburka 1997) and the conditions for consensus identified here may be defined as necessary conditions, they are not necessarily sufficient ones. Further research should explore other important variables such as the influence of "world views" of bureaucracy and nature.

In a larger context, the results identified here contain significant implications for the pursuit of consensus through public participation. The difficulty of achieving consensus in this rather typical and relatively uncontroversial setting provides a basis for questioning the legitimacy of a drive toward consensus in public participation. Achieving agreement on the problem, as one of the scientists perceived, may have been a significant accomplishment, even if consensus on resolutions were not fully acceptable. But, in messy situations where goals are contested and scientists don't agree on cause-effect relationships, consensus would seem to lean heavily on understanding the problem, thus a focus on mutual learning may be a goal more appropriate for participants in these processes, at least in the short-run. In the long-run, consensus may be a significant, desirable and achievable goal because participants are acting on similar levels of knowledge and understandings of the problem. Several of our respondents noted how the content and procedural knowledge gained in this process was helpful in a later county level comprehensive planning setting.

Participants attempt to find an acceptable common ground, yet this common ground can be very different than their ideal outcome. A successful consensus process requires cooperation and a balance of power among competing groups, otherwise groups could seek other avenues for resolution of the conflict such as litigation or lawmaking. One of the main goals of consensus is to resolve the conflict rather than to "win", and therefore requires decision making that is inclusive of all parties involved. As a result, consensus is often more time consuming in the short term. In the long run, investments in consensus building processes may pay off in better and more acceptable decisions. This benefit may be offset by changes that occur in what is at stake.

Consensus can be a successful way of resolving issues or conflicts, but it is not appropriate for all situations. "A consensus process is appropriate when all of the stakeholders believe that they are likely to get something through consensus that they are not likely to obtain from any other arena" (McKinney 1997). Nor will attempts to build consensus always be successful. Attempts at building consensus will be effective only in nonzero sum games. Where there is clearly a set of gains that come at the expense of particular groups, consensus building processes are not only ineffective, but may lead to disenchantment as they begin to fall apart. In this case study, common goals and definitions of the problem were only marginally perceived. Many public individuals clearly participated only on the basis of self-interest. The case of a large scale mine may be an example where a consensus is not possible. If the primary issue concerns the social acceptability of the mine, consensus building processes will likely be inappropriate because there is no space for compromise. A mine is either built or not. In the case of management

of forest lands, there may be more options, thus leading to the opportunity for a consensus.

The process of building consensus is confronted by considerable obstacles, including the lack of skill in leading public participation programs (suggestions for overcoming these are made by Shindler and Neburka), and a number of institutional barriers. A major institutional barrier are perceptions about the requirements of the Federal Advisory Committee Act (FACA), passed in 1972. This legislation prohibits advisory committees to the federal government that contain nonfederal employees without a specific charter from the General Services Administration. Because of several recent court cases involving FACA and natural resource planning, federal land management agencies have been reluctant to engage in intensive, consensus building public participation programs. The court interpretations of FACA have varied considerably, leaving many planners in a dilemma, wanting to engage the public in more deliberative processes, but also wanting to avoid legal entanglements that may lead to invalidation of any resulting plan or decision.

The methodology used in this study was distinctly qualitative in nature. Our objective was to map out the various dimensions of consensus. Future research would involved gaining a better understanding of the quantitative importance and external validity of these dimensions in other natural resource planning situations. Other research questions might engage the strategies various groups employ when they perceive their positions are minority or majority ones, when belief systems of participants simply do not allow some alternatives to be considered, or identifying effective ways of participants coming to similar definitions of the problem.

Given the problematic, contentious and multidimensional character of many natural resource management settings, collaborative learning processes emphasizing participation by scientists, planners and affected publics are often proposed as ways of dealing with conflict and arriving at a consensus concerning not only goals but means as well (Kusel et al. 1997). Each type of participant, however, likely brings differing definitions of the situation to bear, varying expectations of their roles and contributions, potentially discordant normative standards of interaction, and different, if not conflicting, definitions of consensus. Understanding these potentially competing perspectives would seem to be an important area for further research.

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